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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,356	12/28/2001	Satoshi Hoshi	019519-344	3377

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EXAMINER	
GILLIAM, BARBARA LEE	
ART UNIT	PAPER NUMBER
1752	

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/028,356	Applicant(s) HOSHI ET AL.	
	Examiner Barbara Gilliam	Art Unit 1752	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on December 28, 2000. It is noted, however, that applicant has not filed a certified copy of the 2000-401985 application as required by 35 U.S.C. 119(b).

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on February 7, 2001. It is noted, however, that applicant has not filed a certified copy of the 2001-031189 application as required by 35 U.S.C. 119(b).

Claims

3. Claims 1-7 are present.

4. Claims 5 and 7 of the present application are "product-by-process" claims. Applicant is reminded that "product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps." MPEP 2113. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

5. The Examiner has interpreted claim 1 as having two separate embodiments the first of which comprises dissolving a hydrophobic polymer in a solvent immiscible with water in an aqueous phase comprising fine particles of an oxide or hydroxide and the

second of which comprises dispersing a solution obtained by dissolving a hydrophobic polymer in a solvent in an aqueous phase comprising a water-soluble resin. Claims 2-4 further define the first embodiment without requiring the choice of method. Claim 6 further defines the second embodiment without requiring the choice of method.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In each of the independent claims, 1, 5 and 7, "the solvent is removed from oil droplets" to form polymer fine particles." It is not clear what material in the dispersion forms the oil droplets and when they are formed. For examination purposes, the Examiner has interpreted the oil droplets are oil droplets of the hydrophobic polymer.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Vrancken.

a. In US 3,476,937, Vrancken teaches a thermorecording method using a recording medium comprising a uniform layer applied from an aqueous medium and consisting essentially of a continuous phase of hydrophilic binding agent having distributed there through a dispersed phase of particles consisting essentially of hydrophobic thermoplastic polymer (claim 38). The layer is prepared from an aqueous dispersion of the thermoplastic polymer particles (claim 39 & column 5, lines 15-20). The dispersion method taught in Vrancken meets the present limitations, specifically the limitations of the second embodiment.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vrancken in view of Perez et al.

a. As indicated in the corresponding rejection under 35 U.S.C., Vrancken (US 3,476,937) teaches a thermorecording method using a recording medium comprising a uniform layer applied from an aqueous medium and consisting essentially of a continuous phase of hydrophilic binding agent having distributed there through a dispersed phase of particles consisting essentially of hydrophobic thermoplastic polymer (claim 38). The layer is prepared from an aqueous dispersion of the thermoplastic

polymer particles (claim 39 & column 5, lines 15-20). The dispersion method taught in Vrancken meets the present limitations, specifically the limitations of the second embodiment. When natural colloids are used to make up the aqueous phase, the dispersion method of Vrancken also meets the present limitations for the first embodiment. Vrancken do not teach the specific hydrophobic polymer required in present claims 5 and 7, however the Examiner asserts it would have been obvious to use the method of Vrancken to make any type of thermoplastic polymer to make thermoplastic polymer particles including the thermoplastic polysiloxane of Perez et al.

b. In US 6,323,251 B1, Perez et al. teach thermoplastic/thermoset hybrid foams and methods for making the foams (abstract). According to Perez, polysiloxanes are known thermoplastic polymers (column 8, lines 34-41).

c. Therefore would have been obvious to make and coat a layer comprising thermoplastic polysiloxane particles using the dispersion method of Vrancken et al with reasonable expectation of obtaining a coating with uniformity. Further it would have been obvious to use the thermoplastic coating in a thermorecording method such as the thermorecording method of Vrancken. It would have been obvious to one of ordinary skill in the art to also use a surfactant to improve coatability of the layer.

12. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tyagi et al.

a. In US 6,294,595 B1, Tyagi et al. teach the preparation of polymeric powders of small particle size and size distribution and of irregular morphology. An organic phase comprising an organic polymer dissolved in a water-immiscible organic solvent is formed and mixed with an aqueous phase comprising water and solid colloidal

stabilizer particles to form a suspension of particles. The water-immiscible solvent is separated from the polymer to obtain a powder (claim 1). The colloidal stabilizer particles are colloidal silica particles (claim 4). To promote coagulation of the stabilizer, a surface active agent can be added to the solution.

b. Therefore it would have been obvious to one of ordinary skill in the art to make polymeric powders by mixing an organic phase comprising an organic polymer dissolved in a water-immiscible organic solvent with an aqueous phase comprising water and solid colloidal stabilizer particles to form a suspension of particles and a surfactant with reasonable expectation of obtaining non-spherical, irregular toner particles without using carnauba wax based on the teachings of Tyagi et al.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In US 6,427,595 B1, Van Damme et al. teach a heat-sensitive imaging element for making lithographic printing plates comprising polymer particles with specific particle size.

b. In US 5,981,151, Leenders et al. teach a photothermographic material and a method for producing lithographic plates therewith.

c. In US 5,417,164, Nishida et al. teach thermosensitive recording material and thermosensitive recording method.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Gilliam whose telephone number is 703-305-1330. The examiner can normally be reached on Monday through Friday, 8:00 AM - 6:00 PM.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

b. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Barbara Gilliam

Barbara Gilliam
Examiner
Art Unit 1752

bg
July 25, 2003